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STUDIES OF PERUVIAN BIRDS. VIII

THE FORMICARIAN GENERA *CYMBILAIMUS, THAMNISTES, TERENURA, PERCNOSTOLA, FORMICARIUS, CHAMAEZA,* AND *RHEGMATORHINA*

BY JOHN T. ZIMMER

Cymbilaimus lineatus intermedius (Hartert and Goodson)

Cymbilanius lineatus intermedius HARTERT AND GOODSON, 1917 (December), Novit. Zool., XXIV, No. 3, p. 495—Humaythá, Rio Madeira, Brazil; ♀; Amer. Mus. Nat. Hist. (Tring Coll.).

Twenty-one birds from Perú have been studied in conjunction with a series of one hundred and forty-nine examples from Venezuela, eastern Colombia, eastern Ecuador, the Rio Negro, Brazil, and Brazil south of the Amazon from Teffé to the Tocantins, and with twenty-six skins of *fasciatus* and eight of typical *lineatus*, as shown in the subjoined list of specimens examined.

In spite of this abundant material, the significance of certain observable differences remains obscure. The most constant characteristic shown anywhere is the strong banding of the crown in the males of *lineatus* from Faro, Rio Jamundá, Brazil. With a single male from British Guiana for comparison it is impossible to say whether or not the Faro birds are distinct from typical *lineatus*, but the possibility is suggested.

Birds from Perú and eastern Ecuador are not distinguishable from examples collected on the Rio Madeira. Birds from the Tapajoz are inclined to be a little paler, but Tocantins examples are again darker, and miscellaneous specimens from any of these regions can be matched with individuals from the other places. Males from the upper Rio Negro in Brazil, the vicinity of Mt. Duida, Venezuela, and the Caura Valley are somewhat lighter on average than most of the Ecuadorian and Peruvian birds, but again there is no sharp dividing line. The birds from the Rio Negro, Mt. Duida, and the Caura frequently show as much white barring on the crown as the adult males of *fasciatus* now at hand; those of the *fasciatus* males in the series before me which have pronounced bars on the crown are in every case not fully adult, though others of the same age are no more markedly barred on the head than the fully adult skins. The bill seems to reach its maximum length in *fasciatus*, though it is

often no larger than in *intermedius*, and the dark barring of the underparts may be slightly heavier than in the average of *intermedius*, though that, too, is far from constant.

It appears that males just reaching maturity are more extensively white than old birds; at least, the lightest examples at hand from any locality usually show some traces of juvenal plumage not yet lost in molt. It is logical to assume that a bird might have lost the last trace of its juvenal plumage and thus be of indeterminate age though exhibiting, at the same time, more white in the plumage than its associates. It thus becomes difficult to fix the limits of individual variation among birds of equal age, and the geographical significance of the existing observable differences is largely lost. The darkest birds from the various localities are not so greatly different from each other as are the extremes from each place, and single specimens are of little value for comparisons. Seasonal changes may exist but are not demonstrated in the series examined. The general conclusion reached, however, is that so much variation is present due to age and season, and perhaps to purely individual characteristics, that any rearrangement of forms at present is of doubtful advisability.

In Perú there are records from Iquitos, Pebas, Nauta, Rioja, Huachipa, Monterico, and Cosñipata. The specimens recorded below add nothing to the general outlines of this distributional area which embraces the entire humid tropical region of the country in both upper and lower levels.

Specimens Examined

C. l. lineatus.—British Guiana: Tumatumari, 1 ♂, 1 ♀. Brazil: Faro, 4 ♂, 2 ♀.

C. l. intermedius.—Brazil: Rio Negro, Tatú, 2 ♂, 3 ♀; Mt. Curycuryari, 1 ♀; San Gabriel, 2 ♂, 2 ♀; Yucabi, 3 ♂, 3 ♀; Santa Isabel, 1 ♀; Rio Tocantins, Baião, 2 ♂; Mocajuba, 1 ♂; Rio Xingú, Tapará, 5 ♂, 2 ♀; Porto do Moz, 1 ♂, 2 ♀; Rio Tapajoz, Aramanay, 2 ♂, 3 ♀; Tauary, 1 ♂, 2 ♀; Igarapé Brabo, 4 ♂, 6 ♀; Santarem, 2 ♂, 1 ♀; Mararú, 1 ♂; Boim, 2 ♀; Rio Amazonas, Villa Bella Imperatríz, 7 ♂, 6 ♀; Rio Madeira, Borba, 4 ♂, 3 ♀; Igarapé Auará, 4 ♂, 5 ♀; Rosarinho, 1 ♀; Santo Antonio do Guajará, 1 ♀; Teffé, 1 ♂, 3 ♀; Rio Roosevelt, "Camp 14," 1 ♀; Morinha Lyra, 1 ♂. Perú: Astillero, 2 ♂; Río Ucayali, Santa Rosa, 2 ♂; Sarayacu, 2 ♂; Río Amazonas, Orosa, 3 ♂, 5 ♀; Puerto Indiana, 2 ♀; Río Marañón, Pomará, 1 ♂; Río Negro, west of Moyobamba, 3 ♂, 1 ♀; Rioja, 1 ♂[1], 1 ♀[1]; Huachipa, 2 ♀.[1] Ecuador: mouth of Lagarto Cocha, 3 ♂, 1 ♀; mouth of Río Curaray, 4 ♂, 1 ♀; Río Suno, above Avila, 2 ♂, 2 ♀; lower Río Suno, 3 ♂; below San José, 2 ♂, 1 ♀. Colombia: Florencia, 1 ♀; La Morelia, 1 ♀; Río Uaupés, opposite Tahuapunto (Brazil), 1 ♂, 1 "♀" (= ♂?). Venezuela (Río

[1]Specimens in Field Museum of Natural History, Chicago.

Cassiquiare, Río Orinoco, and vicinity of Mt. Duida), 14 ♂, 10 ♀; Río Caura, La Unión, 2 ♂, 1 ♀; Suapure, 1 ♀.

C. l. fasciatus.—NICARAGUA: 7 ♂, 3 ♀. PANAMÁ: 5 ♂, 4 ♀. COLOMBIA: Barbacoas, 4 ♂, 1 ♀; Noanamá, 1 ♀; Nóvita, 1 ♀.

Thamnistes anabatinus rufescens Cabanis

Thamnistes rufescens CABANIS, 1873, Journ. Orn., XXI, p. 65—Monterico (northern Ayacucho), Perú; ♂, ♀; Berlin Mus.

Two females at hand from southeastern Perú differ slightly from each other in the intensity of coloration, as noted previously (Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 325, 1930), for four birds from Huachipa.

Records of this form are from the upper Humid Tropical Zone in southeastern and central Perú, but there is an apparent discontinuity in the three areas which form this range and a hiatus between the northernmost portion (upper Hullaga) and the nearest point in the range of *aequatorialis* to the northward (Sarayacu, eastern Ecuador). These interruptions probably exist only in records and not in nature and may be evident at present only because the species is so rare in collections that its entire range is not known.

Other records are from Amable Maria, La Gloria, and Huaynapata.

SPECIMENS EXAMINED

T. a. anabatinus.—GUATEMALA: 1 ♂.

T. a. saturatus.—NICARAGUA: 4 ♂.

T. a. coronatus.—PANAMÁ: Cituro, 1 ♂.

T. a. intermedius.—COLOMBIA: Barbacoas, 1 ♀ (type); Alto Bonito, 1 ♀. ECUADOR: La Chonta, 1 ♂ (?), 1 ♀; Las Pinas, 1 ♀.

T. a. aequatorialis.—ECUADOR: Río Suno, above Avila, 2 ♂, 1 ♀; below San José, 3 ♂, 4 ♀.

T. a. rufescens.—PERÚ: Río Inambari, 1 ♀; Río Tavara, 1 ♀; Huachipa, 2 ♂[1], 2 ♀.[1]

Terenura callinota (Sclater)

Formicivora callinota SCLATER, 1855, P. Z. S. London, XXIII, p. 89, Pl. XCVI—"Bogotá," Colombia; ♂; British Mus.

A single male from Chaupe furnishes the first definite record of this species from Perú. I have no other males for comparison, but the specimen agrees well with the original description and has the rump chestnut as described but not orange-red as shown in Sclater's plate. It agrees also, except for sexual differences, with two females from Aguadita, Colombia, and a female (not fully adult) from Sabanilla, Ecuador. The

[1]Specimens in Field Museum of Natural History, Chicago.

Colombian skins almost certainly belong to *callinota*, described from "Bogotá," but they also agree well with the description and figure of *T. humeralis* from Sarayacu, Ecuador, except that the superciliary stripe, which is well marked in the figure, is obsolete over the auriculars in the skins.

The ranges of these two forms are not clearly defined and cannot be so until more material has been collected. All the males known from Ecuador belong to *humeralis*, and the only other female recorded from Ecuador, beside the Sabanilla skin, is the female cotype of *humeralis* from Sarayacu. Nevertheless, Sabanilla is possibly in slightly closer geographic affinity to Chaupe, Perú, than to the localities where *humeralis* has been found, and the Sabanilla female, therefore, may be properly assignable to *callinota*, though a male from the same region will be needed to make this allocation certain.

Similarly, the female from Ropaybamba, Perú, described by Taczanowski ('Orn. Pér.,' II, p. 52, 1884) under the name *callinota* but transferred by Hellmayr (Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, part 3, p. 203, 1924) to *humeralis*, may really belong to *callinota;* Taczanowski's male from Pebas is described as having chestnut shoulders, and must, therefore, belong to *humeralis*. In the absence of males from the neighborhood of Ropaybamba, the proper identification of the female is impossible. Consequently I am obliged to leave the matter in abeyance and to accept Hellmayr's disposition of the specimen pending future study.

Judging by the apparent similarity in the females and by the exhibition of the same style of difference between the males as is shown in two subspecies of *T. spodioptila*, I am of the opinion that *callinota* and *humeralis* will be found to be conspecies when their relationships are better understood, but I am unwilling to dispose of them in this manner without having seen *humeralis*. Todd's *T. h. transfluvialis* from the Purús appears, from description, to suggest intermediacy with *T. sharpei* of Bolivia and southeastern Perú.

Terenura humeralis Sclater and Salvin

Terenura humeralis Sclater and Salvin, 1880, P. Z. S. London, p. 159—Sarayacu, eastern Ecuador; ♂, ♀; cotypes in British Mus.

As mentioned in the account of *T. callinota*, a male from Pebas, recorded by Taczanowski as *callinota*, belongs to *humeralis*, while a female from Ropaybamba may be the one or may be the other, but must be placed here for the present. There are no other records from Perú.

Terenura sharpei Berlepsch

Terenura sharpei Berlepsch, 1901 (January), Journ. Orn., XLIX, p. 97—Quebrada onda, eastern Yungas, Bolivia; ♂; Frankfort Mus.

Terenura xanthonota Chapman, 1901 (September), Bull. Amer. Mus. Nat. Hist., XIV, p. 328—Inca Mine, Perú; ♂; Amer. Mus. Nat. Hist.

The type of "*xanthonota*" remains the only known Peruvian specimen of this form. Its identity with *sharpei* is not to be questioned without a series from both localities. There is a possibility of relationship to *callinota* and *humeralis* which likewise needs further study. The entire genus awaits future revision when sufficient material may have become available to permit such study. At present all the species are so rare in collections that such revision is impossible.

Examination of the material at hand, however, has resulted in the discovery of an interesting new form of the allied species, *T. spodioptila*, from a region heretofore devoid of records of the genus. This form is to be recognized as follows.

Terenura spodioptila signata, new subspecies

Type from Mt. Curycuryari, Rio Negro (right bank), Brazil; altitude 2000 feet. No. 310,687, American Museum of Natural History. Adult male collected August 18, 1929, by the Olalla brothers.

Diagnosis.—Similar to *T. s. spodioptila* of British Guiana but male with lesser upper wing-coverts chestnut, not gray. Differs from *humeralis* (as described and figured) by having the upper part of mantle almost entirely rufous, not olive-green, the margins of the remiges gray, not green, and the lower under parts pale grayish white, not yellow. The differences separating it from *spodioptila* are the same as those separating *humeralis* from *callinota*. Size apparently smaller than *callinota*. Female apparently with the lower wing-band (on greater coverts) narrower than in *spodioptila:* male with the same character.

Range.—Known only from the type locality.

Description of Type.—Top of head from base of bill to nape black; hind neck slightly brownish black; mantle, scapulars, and lower back Burnt Sienna x Chestnut, with the basal portions of the feathers much paler, but with a narrow brownish gray area between the rufous of the mantle and the black of the hind neck; upper tail-coverts gray with a faint rufous tinge. Lores and a broad superciliary stripe white, the stripe becoming gray posteriorly; a dusky spot in front of the eye and a blackish line behind the eye; malar region and auriculars white; sides of neck, sides of breast, and upper flanks pale gray; rest of under parts slightly grayish white, a little more grayish on the breast; under wing-coverts and axillars pure white. Remiges blackish brown, edged externally with pale gray; greater and median upper wing-coverts blackish brown with white tips forming two wing-bars; these tips on the greater coverts narrow and mostly confined to the outer web, extending slightly basad along the outer margin; tips on median series broader, crossing both webs; lesser coverts mostly rufous like the mantle, only the lowermost row being sooty, with gray tips and a suggestion of rufous which is shown also by the innermost

feathers of the greater and median series; alula and primary-coverts brown with gray outer margins; inner margins of remiges narrowly whitish; tail dark brown with slightly grayish outer margins and inconspicuous pale tips; tail graduated for 5½ mm. Maxilla blackish (in dried skin); mandible paler; feet dull brownish olive. Wing, 48 mm.; tail, 31.25; exposed culmen, 11.12; culmen from base, 14.25; tarsus, 14.25.

REMARKS.—Female with forehead dark Buckthorn Brown; crown darker and duller; upper part of mantle light Buffy Brown; lower part of mantle and uropygium Sanford's Brown x Hazel; upper tail-coverts dull, pale brownish gray; lores buffy whitish; sides of head dull whitish; superciliary stripe obsolete; under parts as in the male but slightly tinged with pale drab on breast and sides; wings as in the male but duller; lesser upper wing-coverts buffy brown; not rufous; tail as in the male but slightly browner, less grayish.

A pair from the western foot of Mt. Duida, Venezuela, a female from the eastern side of the same mountain, and a female from the left bank of the Río Cassiquiare seem to belong to typical *spodioptila* rather than to *signata*. Unfortunately the male is just reaching maturity and the upper wing-coverts are in molt so that it is not possible to be certain of the eventual color of the lesser series. However, the tips of the greater coverts are broader than in the type of *signata* and the scapulars are warm brown with a slight rufous tinge but are not bright rufous, in which respects the bird agrees well with British Guianan males. The females all have broader lower wing-bands than in the paratype of *signata* and agree with *spodioptila* in this respect. Two of the females are decidedly browner above and on the throat than a female from British Guiana and apparently agree with the characters of a female from the Río Caura as recorded by Hellmayr (Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, part 3, p. 203, footnote *b*, 1924), but the female from the eastern side of Mt. Duida is much grayer and less brownish than the other two and is more like the Guianan bird.

Young birds of both sexes have the under wing-coverts yellow or yellowish and the outer margins of the remiges olive-green. The difference from adults is clearly shown by birds from the same localities. This discovery throws some doubt on the validity of *T. s. elaopteryx*, described from French Guiana as having olive-green margins on the remiges. A female from the Rio Jarý, referred to this form by Madame Snethlage, was said to have these margins gray, and another new form, *meridionalis*, from the Tapajoz, was separated from this so-called *elaopteryx* partly because the Tapajoz female had olive-green edges on the remiges.

Four males from Faro now before me should belong to the same form as Madame Snethlage's female from the Jarý. Two are adults and have the margins of the remiges gray. Two are immature, one with full olive margins, the other molting from olive to gray. If the type of *elaopteryx* is fully adult, the Faro and Rio Jarý skins can not be referred to that form, but there is much probability that it is an immature example. The Faro males are slightly purer white on the under parts than typical *spodioptila*, with the breast, in particular, less grayish, and since this is said to be an additional characteristic of *elaopteryx*, I am inclined to accept it in preference to the color of the remigial margins as the true subspecific character, and to call the Faro birds *elaopteryx*.

Two females from the left bank of the Tapajoz must belong to *meridionalis*, if that form is separable, but not all of the characters ascribed to it are observable in these specimens. The type is said to have a grayish breast without any ochraceous tone, but both of the specimens at hand have a distinctly ochraceous tinge on throat and chest. Both birds (like the type) have yellow wing-lining, olive-green margins on the remiges (which are much brighter than in young *spodioptila* and *elaopteryx*), greenish yellow (instead of white) bands on the upper wing-coverts, and a greenish-yellow tinge on the lower abdomen and crissum. One of these birds is not quite adult, judging by a slight looseness of texture in part of the plumage, but the other seems to be quite adult. Possibly *meridionalis* is separable on these characters. The male is still unknown.

Specimens Examined

T. callinota.—Colombia: Aguadita, 2 ♀. Ecuador: Sabanilla, 1 ♀. Perú: Chaupe, 1 ♂.

T. sharpei.—Perú: Inca Mine, 1 ♂ (type of *T. xanthonota*).

T. s. spodioptila.—British Guiana: Potaro Landing, 1 ♂; Tumatumari, 3 ♂; Rockstone, 1 ♀. Venezuela: Foot of Mt. Duida (Río Cunucunumá), 1 ♂, 1 ♀; Mt. Duida, Pie del Cerro (southeastern base), 1 ♀; Solano, Río Cassiquiare, 1 ♀.

T. s. signata.—Brazil: Mt. Curycuryari, Rio Negro, 1 ♂ (type), 1 ♀.

T. s. elaopteryx.—Brazil: Faro, Rio Jamundá, 4 ♂.

T. s. meridionalis.—Brazil: Rio Tapajoz (left bank), Igarapé Amorín, 1 ♀; Igarapé Brabo, 1 ♀.

Percnostola rufifrons minor Pelzeln

Percnostola minor Pelzeln, 1868 (September), 'Orn. Bras.,' II, p. 159—S. Izabel (=Santa Isabel, Rio Negro); ♂; Vienna Mus.

The inclusion of this bird as a Peruvian form rests solely on a male collected by Bartlett at Nauta, now in the British Museum.

Hellmayr, who has examined this specimen, notes that it differs

from typical males of *minor* merely by its lighter, nearly slate-gray pileum. The character is somewhat variable in Rio Negro males, some of which have little trace of the grayish margins on the feathers that are broad and conspicuous in other examples. One male from the foot of Mt. Duida (Río Pescada) has so much gray on the head that it suggests the condition described for the Nauta male.

The range of this form is somewhat more extensive than has been shown heretofore. It ranges from the upper Rio Negro northward to the southern slopes of Mt. Duida in Venezuela and westward across the Río Uaupés into extreme eastern Colombia. Incidentally, the material at hand shows also that *P. r. subcristata* crosses the Rio Negro a short distance above Manaos. *P. r. minor* similarly is found on both banks of the upper Rio Negro.

SPECIMENS EXAMINED

P. r. rufifrons.—FRENCH GUIANA: Cayenne, 2 ♂; Tamanoir, 1 ♂; Demerara, 1 ♂. DUTCH GUIANA: Schotelweg, Lelydorp, 1 ♂; Altonaweg, 1 ♀. BRITISH GUIANA: Rockstone, 1 ♂. "GUIANA": 1 ♀. BRAZIL: Obidos, 1 ♂.

P. r. subcristata.—BRAZIL: Faro, 7 ♂, 4 ♀; Manaos, 3 ♂, 2 ♀; Igarapé Cacao Pereira, Rio Negro (right bank), 1 ♂, 1 ♀.

P. r. minor.—BRAZIL: Santa Isabel, Rio Negro, 1 ♂, 1 ♀; Mt. Curycuryari, 1 ♂; Yucabi, 1 ♀; Tatú, 3 ♂; Iauaraté, Rio Uaupés, 1 ♂. COLOMBIA: opposite Tahuapunto, Brazil (Río Uaupés), 2 ♂. VENEZUELA: Mt. Duida, Playa del Río Base, 2 ♂; Campamento del Medio, 3 ♂, 3 ♀; Valle de los Monos, 3 ♂; Río Pescada, 4 ♂, 4 ♀; Lalaja, 1 ♂; Esmeralda, 1 ♂; Río Orinoco, mouth of Río Ocamo, 1 ♀; confluence of Río Huaynía and Río Cassiquiare, 1 ♀; Solano, Río Cassiquiare, 2 ♂, 2 ♀.

Formicarius rufipectus thoracicus Taczanowski and Berlepsch

Formicarius thoracicus TACZANOWSKI AND BERLEPSCH (ex STOLZMANN MS.), 1885, P. Z. S. London, p. 101—Machay, eastern Ecuador; ♂ cotype in Warsaw Mus.; ♀ cotype in Frankfort Mus.

I have no topotypical material nor, indeed, any from eastern Ecuador, but the Peruvian skins at hand agree with the original description and appear to represent the east-Ecuadorian form. Berlepsch and Stolzmann (Ornis, XIII, p. 118, 1906) record three specimens from Huaynapata, southeastern Perú, and Chapman (Bull. Amer. Mus. Nat. Hist., LV, p. 413, 1926) has noted four skins from Chaupe, northern Perú, west of the Río Chinchipe. To these localities I can add Uchco,[1] below

[1]Since commenting on the spelling, "Uschco," for this locality (cf. Amer. Mus. Novitates, No. 500, p. 15, footnote, 1931), I have found "Uchco" used by Osgood and by Dyott, both of whom have visited the locality. Since this is more in accord with the spelling of similar names such as Uchubamba, I believe that it is well to adopt that spelling as the probably correct one.

Almirante, between Chachapoyas and Moyobamba. This locality is on the eastern slopes of the eastern Andes as are also Huaynapata and Chaupe, so the form retains its eastern habitat throughout its range, however interrupted it may appear. Future field work may show its occurrence at yet undetected localities in central-eastern Perú, of which the Uchco record may be the forerunner.

F. r. carrikeri, the Colombian representative of the group, appears to reach western Ecuador in a somewhat modified condition, but the exact significance of the differences is not certain. Except for the type and a male topotype, all the Colombian specimens at hand have the top of the head very dark rufous or even blackish (with slight rufous tendencies), especially on the forehead. The west-Ecuadorian birds, on the other hand, have no trace of this black. The type of *carrikeri* and the other San Antonio bird are like the west-Ecuadorian birds. The problem is to determine whether *carrikeri* is confined to the western Andes in Colombia, extending thence into western Ecuador, while the central and eastern Andes of Colombia support a distinct form with blackish forehead; whether the occurrence of rufous-fronted birds in the west in Colombia is unusual, indicating transition toward *rufipectus* or toward some as yet undescribed Ecuadorian form, while true *carrikeri* should be considered as a dusky-fronted form; or whether a single form inhabits this entire region with variational characteristics. Hellmayr (P. Z. S. London, 1911, p. 1174) records a male and female from the western slopes of the western Andes of Colombia, at Pueblo Rico, of which the male has a full rufous pileum, the female a blackish one. Our series from east of the Río Cauca (mostly from the central Andes but including also one skin from El Roble, on the western slopes of the eastern Andes) is not perfectly uniform since one has the whole top of the head, back to the nape, quite sooty while one or two others have the forehead rufous though of a very deep tone. Much more material is needed and until a larger series is available for study, it is unsafe to do more than state the problem.

Specimens Examined

F. r. rufipectus.—Panamá: Chitrá, 1 ♂, 1 ♀; Tacarcuna, 3 ♂, 1 ♀. Costa Rica: Guayabo, 2 ♂, 1 ♀.

F. r. carrikeri.—Colombia: San Antonio, 2 ♂ (incl. type); La Tigrerra, 1 ♂; Salencio, 1 ♂; La Frijolera, 1 ♂; El Roble, 1 ♀; east of Palmira, 1 ♂, 2 ♀. Ecuador: Salvias, 1 ♂; El Chiral, 1 ♂, 2 ♀; Zaruma, 1 ♂, 1 ♀; vicinity of Gualea, 2 ♂, 1 ♀. Mindo, 2 ♂.

F. m. thoracicus.—Perú: Chaupe, 3 ♂, 1 ♀; Uchco, 1 ♂.

Formicarius colma nigrifrons Gould

Formicarius nigrifrons Gould, 1855, Ann. Mag. Nat. Hist., (2) XV, p. 344—Chamicuros, Perú; British Mus.

Fourteen birds from northeastern Perú are in close agreement with eleven from eastern Ecuador, while five from the left bank of the lower Rio Madeira, Brazil, are referable to the same form, obviously *F. c. nigrifrons*. Other skins from eastern Colombia and the region between the upper Rio Negro and the upper Orinoco, in adjacent parts of Colombia, Brazil, and Venezuela, are somewhat closer to typical *colma* of the Guianas, though intermediate in certain respects between that form and *nigrifrons*.

In the first place, none of the Orinoco-Negro birds are as dark as the best-marked examples of *nigrifrons*, neither as extensively black on the breast nor as blackish at the base of the tail. Furthermore, the adult females of *nigrifrons* from Ecuador and Perú have the throat practically without white except sometimes at the extreme bases of the feathers (sometimes with the entire throat white); in this respect also the Orinoco-Negro females agree with *colma*.

Four skins from the upper Caquetá (Florencia and La Morelia), Colombia, likewise appear to be nearer *colma* than *nigrifrons*.

Among the specimens of *colma* are a number of immature males which are most interesting. One is from British Guiana, one from the Río Caura, Venezuela, one from Esmeralda at the foot of Mt. Duida, one from extreme eastern Colombia on the Uaupés, one from Brazil on the Uaupés, and one from the upper Rio Negro (Santa Maria). These birds all have the forehead rufous like the crown, some without a trace of black (except concealed subterminally) in this area and others with the silky black feathers of the adult plumage beginning to appear among the juvenal rufous ones, showing definitely that the rufous forehead in birds from this region is a character of immaturity. The under parts are in various stages of transition from immature to adult plumage, and one example has the full black anterior under parts of the adult male while the forehead is just beginning to show a trace of black. Included in this group of juvenals, is the specimen from La Union, Río Caura, which was recorded by Cherrie (Bull. Mus. Brookl. Inst. Sci., II, p. 292, 1916) as *Formicarius ruficeps*, and I am convinced that *F. r. orinocensis*, described from the Caura Valley, was based on a similar bird in transitional plumage. The description of *orinocensis* applies perfectly to these specimens, especially to such as have acquired the adult plumage on the under parts. All fully adult birds at hand from the Caura have black foreheads.

With a number of young "*ruficeps*" *amazonicus* for comparison with young *colma*, there is little to observe in the nature of distinguishing characteristics. Possibly the young *amazonicus* have the top of the head paler and the lateral borders of the crown and nape especially so (these features are pronounced in the adults), but the young of the two forms are exceedingly alike. This similarity, taken in conjunction with the ease of confusion between the adults of *ruficeps* and *amazonicus* and the young of *colma*, and considering the geographic replacement of the various forms, points to the conspecific affinity of *colma* and *ruficeps*, and I have so considered the group.

Incidentally, it may be emphasized that Daubenton's plates (Pl. Enl. 703, fig. 1, and 821) on which the name *colma* and the synonyms *cayanensis* and *tetema* are based, figure rufous-fronted birds like the specimens under discussion, a fact which led Sclater ('Cat. Birds Brit. Mus.,' XV, p. 302, 1890) to consider these names as applicable to the form described by Spix under the name *ruficeps*.

The young of *nigrifrons* are usually separable from those of *colma* and *amazonicus* by their sootier breasts and darker crowns. Not only is the tone of rufous on the head duller and darker but there is a central area in which the rufous tips are even more obscure and sometimes quite absent, leaving a sooty coronal patch. In a young male from the left bank of the Rio Madeira, the forehead also is blackish, but in the other young birds it is rufous as in young *colma*.

The bird described by Wied ('Beitr. Naturg. Bras.,' III, (2), pp. 1038, 1841, in text) as the nestling of "*Myioturdus tetema*" (=*Formicarius c. ruficeps*) is at hand and is in juvenal plumage but has the remiges and rectrices in molt, and such of these as are sufficiently developed to be examined are of a pattern totally unlike that of any *Formicarius*. The remiges are narrowly margined with white on the inner webs and with indications of whitish edges externally on the primaries; the alula has a white outer margin; the upper wing-coverts are broadly tipped with deep buff; the outer rectrices are barred with white and blackish brown; the whole upper parts of head and body are Bister with Cinnamon tips; the under parts are soiled whitish or buffy white with narrow brown subterminal bars. Unfortunately the bill is completely missing. The pattern, however, is shown rather exactly by the remains of male juvenal plumage in certain subadult specimens of *Taraba major major* from Argentina and Matto Grosso and I have no doubt that Wied's bird belongs to that species (subspecies indeterminable). I am unable to match it with any other Formicarian. The large feet (tarsus, 27 mm.) narrow the search considerably.

The range of *F. c. nigrifrons* in Perú is restricted to the lower Tropical Zone. There are no records from north of the Amazon in Perú although the bird occurs on the lower Napo in Ecuador and should reach the north bank of the Marañón. The greatest southward extension of range is along the Ucayali where it reaches at least to the mouth of the Urubamba. Records not listed below are from Chamicuros, Yurimaguas, and Chuchurras.

SPECIMENS EXAMINED

F. c. colma.—FRENCH GUIANA: Cayenne, 1 ♂, 1 (?); Tamanoir, 1 ♂; Pied Saut, 2 ♀. BRITISH GUIANA: Kamakusa, 1 (?); Potaro Landing, 1 ♂; Tumatumari, 1 ♂; "British Guiana," 1 ♂, 1 ? (type of *F. glaucopectus* Ridgway). VENEZUELA: La Unión, Río Caura, 1 ♂, 3 ♀; El Llagual, 1 ♂; foot of Mr. Duida (=Río Cunucunumá), 2 ♀; Playa del Río Base, 2 ♂; Valle de los Monos, 1 ♀; Caño León, 1 ♀; "Primer Campamento," 1 ♂; Esmeralda, 5 ♂, 1 ♀; Río Orinoco, mouth of Río Ocamo, 3 ♀; opposite mouth of Ocamo, 2 ♂, 1 ♀; Río Cassiquiare, El Merey, 2 ♀; opposite El Merey, 4 ♂, 1 ♀. COLOMBIA: Río Uaupés, opposite Tahuapunto, 1 ♂; Florencia, Río Caquetá, 1 ♂; La Morelia, 3 ♂. BRAZIL: Rio Uaupés, Tahuapunto, 1 ♂; Rio Negro, Tabocal, 1 ♂; Santa Maria, 1 ♂; San Gabriel, 1 ♀; Manaos, 2 ♀; Faro, 7 ♂, 2 ♀.

F. c. nigrifrons.—ECUADOR: Río Suno, above Avila, 1 ♂, 1 ♀; lower Río Suno, 2 ♂, 3 ♀; below San José, 1 ♂, 1 ♀; mouth of Lagarto Cocha, 2 ♂. PERÚ: Orosa, Río Amazonas, 2 ♀; Sarayacu, Río Ucayali, 3 ♂, 1 ♀; Santa Rosa, upper Ucayali, 2 ♂, 1 ♀; Lagarto, 2 ♂, 1 ♀; mouth of Río Urubamba, 2 ♂. BRAZIL: Rio Madeira (left bank), Rosarinho, 2 ♂; Santo Antonio de Guajará, 1 ♂, 2 ♀.

F. c. amazonicus.—BRAZIL: Rio Madeira (right bank), Borba, 2 ♂, 2 ♀; Rio Roosevelt, Broken Canoe Rapids, 1 ♀; Rio Amazonas, Villa Bella Imperatríz, 8 ♂, 4 ♀; Rio Tapajoz, Pinhel, 1 ♂; Igarapé Amorín, 2 ♂; Limoãl, 2 ♂, 1 ♀; Igarapé Brabo, 3 ♂, 3 ♀; Tauary, 1 ♂; Piquiatuba, 1 ♂; Caxiricatuba, 2 ♂, 1 ♀, 1 (?); Rio Tocantins, Baião, 1 ♂, 1 ♀; Arumatheua, 1 ♀; Kelvú, Maranhão, 2 ♂, 1 ♀.

F. c. ruficeps.—BRAZIL: "Bahia," 2 (?); Jaguaquara, Bahia, 1 ?; Lagôa do Forno, Rio Grande do Sul, 1 ♀; Salto Pirahy, Santa Catharina, 1 ♀.

NOTE

Formicarius analis has been discussed in No. 1 of the present series of papers, Amer. Mus. Novitates, No. 500, pp. 20–22, 1931.

Chamaeza brevicauda punctigula Chapman

Chamaeza columbiana punctigula CHAPMAN, 1924, Amer. Mus. Novitates, No. 123, p. 4—Río Suno, above Avila, Tropical Zone, eastern Ecuador; ♂; Amer. Mus. Nat. Hist.

The discovery of the Ecuadorian subspecies of *brevicauda* on the Río Chinchipe, Perú, is not surprising, especially since it was already

known to occur as far to the southwest in Ecuador as Sabanilla, Province of Loja.

The Peruvian bird is slightly paler above than Río Suno and San José specimens but is more worn and probably more faded, having been collected in September, whereas the east-Ecuadorian examples were taken in February and April. The Sabanilla bird, secured in November, is also somewhat worn and faded though less so than the Peruvian skin.

There is some variation in the prominence of the blackish subterminal band on the tail. This band is weak in a San José female and is absent from the median rectrices in the Peruvian skin, also a female. Similar variation occurs in other subspecies of the group. In any case the Río Chinchipe skin appears to be inseparable from *punctigula*.

Chamaeza brevicauda olivacea Tschudi

Ch(amaeza) olivacea TSCHUDI, 1844 (May), Arch. Naturg., X, (1), p. 279—Perú (Montaña de Vitoc, Dept. Junín suggested by Hellmayr, 1924); Mus. Neuchâtel.

I have not seen this form. It appears to be confined to the Chanchamayo Valley in central Perú, and, outside of Tschudi's birds, has been collected at La Gloria, La Esperanza, and Masayacu.

The various subspecies of *brevicauda* are all quite isolated so far as recorded specimens demonstrate the distribution. Probably the difficulty of collecting them accounts for much of their rarity in collections. Future intensive field work may narrow some of the present gaps in the known ranges. There is no apparent reason why *olivacea* or a related form should not be found along the eastern Andes between the Huallaga and the Marañón, but there are no records from this entire region. Across the Marañón, on the Chinchipe, *C. b. punctigula* takes its place, while to the southeastward, *C. b. berlepschi* completes the roster of Peruvian forms. The latter form is discussed below.

Chamaeza brevicauda berlepschi Stolzmann[1]

Chamaeza brevicauda berlepschi STOLZMANN, 1926 (December 31), Ann. Zool. Mus. Pol. Hist. Nat., V, (4), p. 216—Huaynapata, Marcapata Valley, southeastern Perú; ♀; Warsaw Mus.

In 1906 (Ornis, XIII, p. 118), Berlepsch and Stolzmann noted certain characteristics of a female *Chamaeza* from Huaynapata (one of

[1]The late Jan Stanislas Sztolcman, Polish naturalist, published his writings under this name as well as under the variant, "Jean Stolzmann." It was under the latter spelling that his earlier contributions to Peruvian ornithology were made public and by this name that his contemporary, Taczanowski, made voluminous references to his Peruvian records. I have decided, therefore, to use this spelling uniformly throughout the present Peruvian studies, regardless of the particular style adopted by the author in question in individual cases. In the bibliography of Peruvian ornithology, to be incorporated in the final volume of the work in hand, more details will be given for the various titles.

three skins obtained by Kalinowski, two of which had been distributed elsewhere). Twenty years later, Stolzmann named the form *berlepschi* from the same specimen. Hellmayr and Seilern meanwhile (Arch. Naturg., LXXVIII, A, 5, p. 131, 1912) had described *C. b. boliviana* from Quebrada Onda, Bolivia. From the descriptions, however, *berlepschi* is not exactly intermediate in coloration between *olivacea* and *boliviana*, both of which are said to be olivaceous above while *berlepschi* is more rufescent than either of the others. In other respects, the resemblance appears to be closer to *bolivianus* than to *olivacea*, as might be expected in view of the geography of the regions in question.

Without a series of specimens from southeastern Perú and Bolivia, it is impossible to pass judgment on the validity of *berlepschi*, but the characters given for it are sufficient to maintain the form if they are constant, since they are of the same sort as those which separate other subspecies of the group.

The range of *berlepschi* may, therefore, be given as restricted to the Marcapata Valley, southeastern Perú, pending the advent of additional specimens. There are no recorded specimens other than the three collected by Kalinowski.

Chamaeza brevicauda columbiana Berlepsch and Stolzmann

Ch(amaeza) columbiana Berlepsch and Stolzmann, 1896, P. Z. S. London, p. 385—"Bogotá"; Frankfort Mus.

Although not a Peruvian form, this subspecies presents certain problems which it may be of interest to state here in the hope that future investigations may help in their solution.

The form was described from "Bogotá" skins, the exact locality of which, of course, is uncertain. The characters were not given by direct description but, instead, certain specimens of *olivacea* from Perú were discussed in comparison to the "Bogotá" birds which were then given the name *columbiana*. Judging by this comparison, *columbiana* has a white throat and belly, non-olive sides and non-ochraceous flanks, broader blackish margins on the feathers of belly and flanks, olive-brown upper parts, a well-marked superciliary stripe and a well-marked subterminal band on all rectrices. Later authors have noted the upper parts of "Bogotá" skins as Mars brown or russet brown, though the tail is said to lack the blackish band on the median rectrices, noted as present in the original skins.

A single "Bogotá" skin at hand is, indeed, quite rufescent brown on the upper parts, and the median rectrices have the dark subterminal band

poorly developed though not entirely absent, but this bird is immature and not reliable for purposes of subspecific comparison. On the other hand, our skins from Buena Vista, a short distance below Bogotá on the eastern slopes of the Andes, are not at all rufescent above but are quite olivaceous, though not so greenish as typical *brevicauda*. The question arises as to what these Buena Vista birds may be.

C. b. venezuelana, described from Caracas, Venezuela, has been recorded from San Cristóbal, Tachira, not far from the Colombian border though some distance away from Buena Vista. This form, which I have not seen, is said to be olivaceous above, comparable to *brevicauda*. The Buena Vista specimens may possibly be referable to this form, though they are far less greenish olive than *brevicauda*, as I have mentioned above. On the other hand, the existing "Bogotá" skins may be somewhat discolored from postmortem change, and the fresher Buena Vista specimens may show the true coloration of *columbiana*. The difficulty lies in finding a range for *columbiana* distinct from the eastern slope of the eastern Andes where Buena Vista is situated. Collectors in other localities adjacent to Bogotá have failed to find any representatives of this group.

Consequently, with both range and taxonomic characters of *columbiana* in doubt, the reference of the Buena Vista skins to that form is justified only by the geographic position of the locality with reference to Bogotá and is subject to revision.

Specimens Examined

C. b. fulvescens.—British Guiana: Merumé Mts., 1 ♂ (cotype).[1]

C. b. columbiana.—Colombia: "Bogotá," 1 (?) imm.; Buena Vista, 1 ♂, 3 ♀.

C. b. punctigula.—Ecuador: Río Suno, above Avila, 2 ♂ (incl. type), 1 ♀; below San José, 2 ♂, 1 ♀; Sabanilla, 1 ♂. Perú: Huarandosa, Río Chinchipe, 1 ♀.

C. b. brevicauda.—Brazil: Itapura, São Paulo, 1 ♀; "Brazil," 1 ♂. Argentina: Misiones, 1 ♂; Santa Ana, Misiones, 1 (?).

Chamaeza nobilis nobilis Gould

Chamaeza nobilis Gould, 1855 (May), Ann. Mag. Nat. Hist., (2) XV, p. 344—Chamicurros (=Chamicuros), Perú; a cotype in British Mus. and one in Acad. Nat. Sci. Philadelphia.

The typical form of the species was described from Chamicuros, on the eastern side of the Huallaga, and has since been recorded from Santa Maria, on the lower Ucayali. According to the material at hand, it

[1]Salvin and Godman, in the original description of this form, said that there were six skins of it in Whitely's collection. Since no single specimen was selected as type, the original six birds must be considered as cotypes, of which the present specimen is one.

extends up the Ucayali to the mouth of the Urubamba and also eastward, though the latter extension was assured by Todd's record of the species from the Purús in Brazil.

The birds from Orosa and the Ucayali are all characterized by an olivaceous tone of the upper surface which is lacking in specimens from north of the Amazon in Perú, Ecuador, and Colombia. These northern birds are distinctly darker and more rufescent above, and although an occasional skin from south of the river approaches their ruddy tone, almost all of them are readily distinguishable and some of them are extremely marked. Since this form has not been named, I describe it hereunder.

Regarding the types of *nobilis*, Gould says nothing concerning the number of examples which he had, though he remarks that the specimens from which his descriptions of various new forms (described in the paper in question) were drawn were in his own collection. There appear to be two examples of *nobilis* from Gould's collection labeled by Gould as "type," one in the British Museum and one in the Academy of Natural Sciences of Philadelphia. In the absence of any specification by Gould, both of these specimens must be accorded equal rank as cotypes.

Chamaeza nobilis rubida, new subspecies

TYPE from the lower Río Suno (mouth of the Río Huataraco), eastern Ecuador. No. 184,388, American Museum of Natural History. Adult male collected March 11, 1924, by Carlos Olalla and sons.

DIAGNOSIS.—Similar to *C. n. nobilis* of northeastern Perú, south of the Marañón, but upper parts darker and more rufescent in tone, especially on the neck and upper tail-coverts; under tail-coverts averaging more buffy and more heavily margined with blackish; size averaging slightly smaller.

RANGE.—Eastern Perú, north of the Marañón, eastern Ecuador, and southeastern Colombia.

DESCRIPTION OF TYPE.—Top of the head from crown to nape deep Argus Brown x Auburn, with centers of feathers more sooty; forehead black; hind neck and sides of neck bright Hazel x Argus Brown, with a concealed whitish stripe along the sides of the neck from the lower border of the auriculars posteriad; back Argus Brown x Brussels Brown with ill-defined, dusky, subterminal bars; upper tail-coverts again brighter, like the hind neck. Lores whitish on lower portion, light chestnut on upper portion adjacent to the black forehead; a rufous-brown spot before the eye continued on the upper eyelid back to the middle of the orbit; posterior half of upper eyelid white, continued more broadly (somewhat tinged with ochraceous), over the auriculars; auriculars, subocular space, and upper border of malar region like the back, merging into the color of the sides of the neck; lower portion of malar region white with a fine triangular, blackish brown spot at the tip of each feather and a dusky outer margin on the outermost series, forming a blackish line between the white and the brown portions of this area; chin white with a similar blackish lateral border;

throat white with sparse, dusky brown dots anteriorly and larger ones below which expand on the lowermost feathers into terminal lunules. Breast heavily marked with broad, blackish lateral and terminal borders on each feather bounding a sagittate white center sometimes buffy at tip; these dark margins become broader away from the middle line of the breast until the whitish center is reduced to a shaft streak; on the sides of the breast the black borders disappear or are reduced to a terminal margin, the white stripe becomes obsolete, and the general color becomes brown, first on outer webs and then on both webs, merging into the color of the back; on the lower breast, the dark margins are again narrowed and interrupted at the shaft by the white centers reaching the tips of the feathers; flank feathers similarly white to the tips but blackish borders broad, and on the outermost feathers the white stripe is withdrawn from the inner web, being retained only on the outer web. Belly white with reduced dusky margins on upper portion, pure white on the lower portion; feathers of femoral tracts whitish or dull buffy, with dull sooty lateral margins and a short, longitudinal, sooty shaft-stripe (sometimes a subterminal, oblique bar) which is absent on some of the feathers; tibial feathers dull grayish brown with narrow, dull ochraceous tips on outer side, broad white tips on inner side; under tail-coverts pale buff, with dark brown margins, lateral row with the dark outer border moved inward toward the shaft and the outer portion of outer web brighter brown; tips of longest coverts uniform buff. Remiges blackish brown, with outer margins of secondaries and exposed portions of tertials and upper wing-coverts slightly darker than the back. Under wing-coverts largely white, with broad brownish tips, darker on the primary series; marginal coverts deep brown with whitish shaft-stripes near wrist. Tail dark Bister, with a broad blackish subterminal band, wider and less clearly defined on outer remiges; a narrow terminal band of brownish gray on middle pair, wider and white instead of gray on the remainder though an outer border of gray is retained which is progressively narrower toward the outermost pair; the white area is divided or partly divided by a lanceolate projection of the black subterminal border along the shaft posteriad; tips of rectrices laterally rounded but with a short, acute projection at the shaft. Bill black, with the lower border of mandible yellowish (in dried skin); feet dark brown. Wing, 114.5 mm.; tail, 59; exposed culmen, 20; culmen from base, 26; tarsus, 41.

REMARKS.—Females averaging slightly smaller than the males; pattern and color similar but averaging more rufescent, with the hind neck sometimes dark Hazel x Sanford's Brown and the other colors correspondingly warmer.

Individual variation of both sexes shows the tail-bands sometimes less pronounced than in the type, sometimes more sharply defined; gray tip of median rectrices sometimes with a white shaft-streak; under tail-coverts sometimes more purely whitish and sometimes less heavily margined; sides of breast sometimes brighter brown. Wings (♂), 108–114.5 mm.; (♀), 105–113; tail (♂), 58–60; (♀), 55–63; culmen from base (♂), 24–26; (♀), 24–26; tarsus (♂), 40–43; (♀), 39–41.25. Corresponding measurements in *C. n. nobilis* show the wings (♂), 108.5–116.5; (♀), 107–110; tail (♂), 61–66.5; (♀), 56–63; culmen from base (♂), 23–28; (♀), 25.5–26.25; tarsus (♂), 40–42.5; (♀), 40–41.

Taczanowski's description of "*nobilis*" ('Orn. Pér.,' II, p. 79, 1884) was drawn up from a specimen taken at Sarayacu, Ecuador, which, from both locality and description, must belong to *rubida*. Todd's *C. n. fulvipectus* from the Rio Tapajoz, Brazil, I have not seen.

SPECIMENS EXAMINED

C. n. nobilis.—PERÚ: Orosa, 4 ♂, 3 ♀; Sarayacu, Río Ucayali, 1 ♂; mouth of Río Urubamba, 2 ♂.

C. n. rubida.—PERÚ: Apayacu (=Anayacu), 1 ♀. ECUADOR: Río Suno, above Avila, 1 ♂, 2 ♀; lower Río Suno, 4 ♂ (incl. type), 4 ♀; mouth of Lagarto Cocha, 1 ♀; mouth of Río Curaray, 2 ♂, 3 ♀. COLOMBIA: La Morelia, 1 ♂, 2 ♀.

Rhegmatorhina melanosticta brunneiceps Chapman

Rhegmatorhina brunneiceps CHAPMAN, 1928, Amer. Mus. Novitates, No. 332, p. 9—Río Seco, about 30 miles west of Moyobamba, Perú; ♂; Amer. Mus. Nat. Hist.

Although this form is quite well marked, its characteristics are only those of *melanosticta* somewhat exaggerated and do not seem to be of full specific value. I see no reason, therefore, for keeping *brunneiceps* out of a place in the *melanosticta* group where it occupies a natural and otherwise unoccupied corner of the range of the species.

I believe that the species is closer to the genus *Rhegmatorhina* than to *Gymnopithys* where it was placed provisionally by Hellmayr (1924). Although the structure of the feathers on the top of the head is different from that exhibited by either *Gymnopithys* or *Rhegmatorhina* as usually restricted, it is the only important character which diverges from *Rhegmatorhina* while there are other additional features which distinguish *Gymnopithys*. As suggested by Hellmayr, a separate genus could be created for this species alone, but I do not believe that the differences are sufficient to warrant such a course, the extreme result of which would be monotypic genera for all good species.

Rhegmatorhina melanosticta badia, new subspecies

TYPE from La Pampa, southeastern Perú (Tropical Zone). No. 146,144, American Museum of Natural History. Adult male collected October 15, 1916, by Harry Watkins; original number 299.

DIAGNOSIS.—Similar to *R. m. melanosticta* from eastern Ecuador but decidedly more rufescent brown on body, wings, and tail, which are only a little less brightly rufescent than in *brunneiceps;* head about as in *melanosticta*, possibly grayer and less brownish above.

RANGE.—Tropical Zone of southeastern Perú.

DESCRIPTION OF TYPE.—Narrow circumocular space denuded, except for blackish feathering on eyelids; surrounding this space a wider ring of brownish-black

feathers, those above the eye somewhat stiffened, short, pointed, and semi-erect and with their bases rufescent; whole top of head from anterior part of lores to hind neck soiled buffy white at bases of feathers, sooty brown at tips, the feathers being long, stiffened, and semi-decomposed; back Argus Brown with a tinge of Auburn, and with the shafts inconspicuously dusky, occasionally developing a blackish subterminal spot on some of the feathers. Malar region and auriculars brownish black, included in the circumocular ring; sides of neck brownish olive with traces of dusky subterminal spots; breast, sides, and most of belly Raw Umber x Brussels Brown; flanks more rufescent (Brussels Brown x Argus Brown); under tail-coverts like flanks but with dusky subterminal spots and buffy tips, not very conspicuous; upper tail-coverts brighter rufous than the back; tail fuscous but outer margins and most of middle rectrices rufescent like the back, tips darker. Wings above fuscous, but exposed outer surfaces bright Auburn; upper wing-coverts slightly brighter than the back, the lesser and middle series with small, blackish, subtermnial spots which are only faintly suggested on the greater series; under wing-coverts like breast; under side of remiges largely Cinnamon-Rufous, grayish brown at tips; maxilla grayish black (in dried skin); mandible dull whitish; feet black. Wing, 85.25 mm.; tail, 50.5; exposed culmen, 17; culmen from base, 20; tarsus, 28.5.

Remarks.—The second male at hand is browner on the head than the type but a little less rufescent on the back and is without most of the blackish dots on the upper wing-coverts; the under side is a little brighter than in the type.

Dr. Chapman (Bull. Amer. Mus. Nat. Hist., LV, p. 402, 1926) called attention to the more rufous coloration of one of the La Pampa birds as compared with a single Ecuadorian skin of *melanosticta*. The acquisition of a female from Ecuador and another male from La Pampa has shown the difference to be apparently of subspecific value. The young male recorded by Hellmayr from San Gaban should belong to the new form. Judging by its description it has the top of the head sootier than in either of the skins before me.

Rhegmatorhina melanosticta purusiana (Snethlage)

Gymnopithys purusiana Snethlage, 1908, Bol. Mus. Goeldi, V, No. 1, p. 59—Cachoeira, Rio Purús, Brazil; ♂; Mus. Goeldi.

A female, not quite adult, from the mouth of the Río Urubamba, Perú, must be referred to *purusiana* and not to the other subspecies known from Perú. It agrees very well with skins from Teffé and the left bank of the lower Rio Madeira, Brazil, which I assume to represent *purusiana;* though they are not topotypical, they come from both east and west of the type locality. The Teffé male is somewhat darker than the Rosarinho males. The females exhibit much variation in the size of the dorsal spots; these are smallest in the adult Teffé female but are as large in the Peruvian bird as in any of the Rosarinho skins. The Madeira

birds are very slightly grayer on the under parts, the Teffé and Lagarto birds slightly browner. The eastern birds of both sexes also have the crown slightly clearer whitish basally. These differences are very slight and may be interpreted as a tendency in the west toward *badia* or *melanosticta* without exceeding the limits of *purusiana*.

SPECIMENS EXAMINED

R. m. melanosticta.—ECUADOR: Río Suno, above Avila, 1 ♂; mouth of Lagarto Cocha, 1 ♀.

R. m. brunneiceps.—PERÚ: Río Seco, west of Moyobamba, 2 ♂ (incl. type), 2 ♀.

R. m. badia.—PERÚ: La Pampa, 2 ♂.

R. m. purusiana.—PERÚ: mouth of Río Urubamba, 1 ♀. BRAZIL: Teffé, 1 ♂, 2 ♀; Rosarinho, Rio Madeira, 2 ♂, 5 ♀; Santo Antonio de Guajará, 1 ♂.